

Un-Announced Speed Changes



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Mach Speed Variation

- **The FAA has presented papers at IPACG and ISPACG which outline the dangers of unannounced speed changes.**
- **At the last ISPACG Meeting all agreed to continue the trial procedure and identify the data.**
- **The data used is the first 10 days of every month.**



ICAO Annex 2 3.6.2.2 change

3.6.2.2 *Deviations from the current flight plan.* In the event that a controlled flight deviates from its current flight plan, the following action shall be taken:

- a) *Deviation from track:* if the aircraft is off track, action shall be taken forthwith to adjust the heading of the aircraft to regain track as soon as practicable.
- b) *Deviation from ATC assigned Mach number/indicated airspeed:* the appropriate air traffic services unit shall be informed immediately.
- c) *Deviation from Mach number/true airspeed:* if the sustained Mach number/true airspeed at cruising level varies by plus or minus Mach 0.02 or more, or plus or minus 19 km/h (10 kt) true airspeed or more from the current flight plan, the appropriate air traffic services unit shall be so informed.



ICAO Annex 2 3.6.2.2 change

d) *Change in time estimate*: except where ADS-C is activated and serviceable in airspace where ADS-C services are provided, if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, changes in excess of 2 minutes from that previously notified to air traffic services, or such other period of time as is prescribed by the appropriate ATS authority or on the basis of regional air navigation agreements, the flight crew shall notify the appropriate air traffic services unit as soon as possible.



Speed Change NOTAM

- **A1445/15 - ATTN ALL AIRCREWS-NEW PROCEDURAL REQUIREMENT FOR FLIGHTS OPERATING IN OAKLAND OCEANIC CONTROL AREA (KZAK). IN ORDER TO **SUPPORT COST INDEX OR ECON SPEEDS AND** MAINTAIN ATC SEPARATION SPACING AIRCREWS ARE REQUIRED TO USE THE FOLLOWING PROCEDURES IN THE KZAK FIR. A PILOT MUST INFORM ATC **VIA VOICE OR CPDLC** EACH TIME THE CRUISING MACH NUMBER VARIES OR IS EXPECTED TO VARY BY A VALUE EQUAL TO OR GREATER THAN 0.02 MACH FROM:**
 - (1) THE MACH NUMBER AT FIR ENTRY; OR
 - (2) ANY SUBSEQUENT SPEED CHANGE NOTIFIED TO ATC IN FLIGHT
- **IF YOU HAVE ANY QUESTIONS CONTACT DUSTIN BYERLY(510)745-3543**



This is an automated message to confirm data link connection to KZAK. Pilots must inform ATC each time the Mach Number varies or is expected to vary by a value equal to or greater than 0.02 Mach



Speed Change Procedure

- Procedurally when an aircraft wants to change by .02 Mach number (or more), they will downlink DM18 with the requested speed (Mach number).
- If ATC requires a speed assignment for separation, an appropriate speed assignment would be assigned ie **UM106 MAINTAIN *Speed***.
- If ATC did not require a speed assignment, the following could be Uplinked:
 - **UM ROGER**
 - **UM169 Speed change to M0.84 approved**
 - **This advises the aircraft that the requested speed change is approved but no speed restriction has been assigned.**



Speed Change Procedure

- **2051Z-FDX60: REQUEST M084, DUE TO AIRCRAFT PERFORMANCE**
- **2056Z- ATC: SPEED CHANGE TO M84 APPROVED**
- **2056Z-FDX60: ROGER**
- **2142Z-FDX60: REQUEST M080, DUE TO TURB**
- **2142Z-ATC: MAINTAIN M080**
- **2143Z-FDX60: WILCO**
- **2242Z-FDX60: REQUEST M084**
- **2244Z- ATC: SPEED CHANGE TO M84 APPROVED**
- **2244Z- FDX60: ROGER**

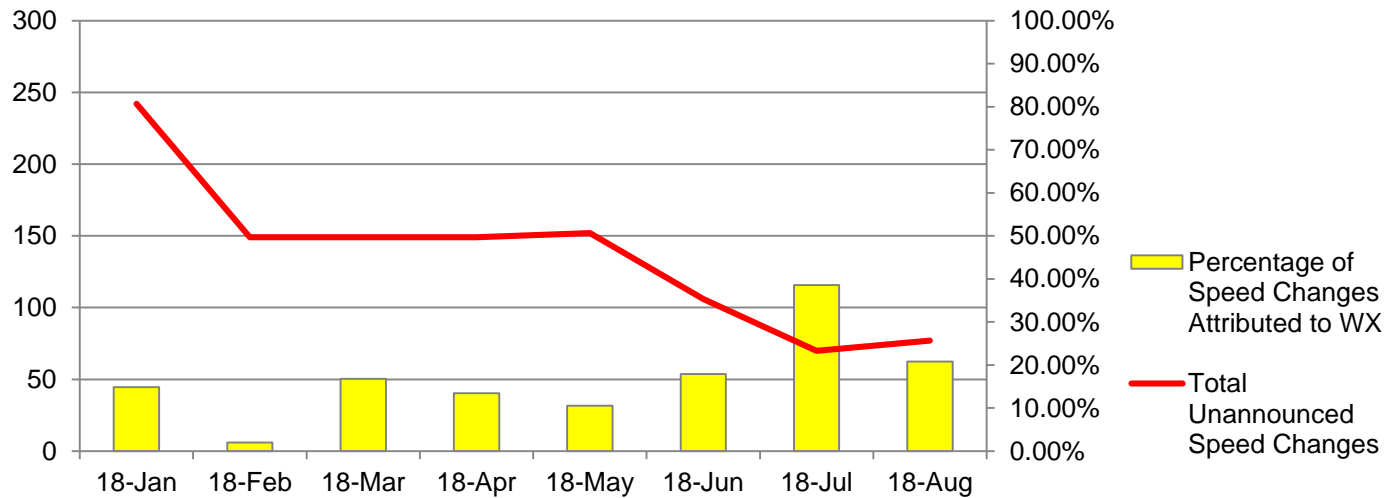


Speed Changes associated with Wx

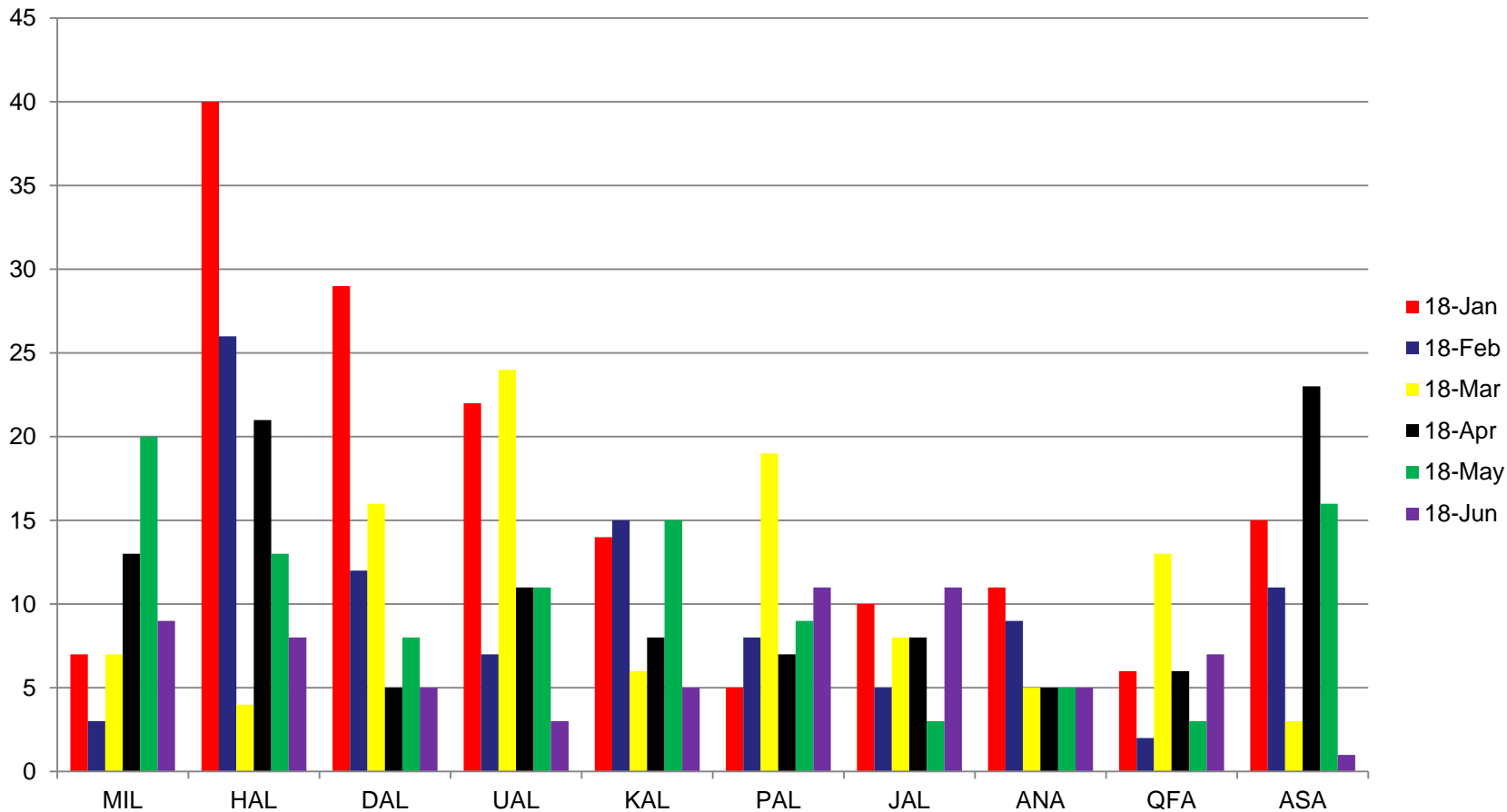
- **The data shows that in many cases weather was a factor for those flights.**
 - CPDLC messages in the time frame of the speed change indicate SIGMET notifications, Turbulence AIREPs or Weather Deviation requests.
- **Many Aircraft are making a CPDLC request at the time of the speed change. The aircrew should include a speed change request with their other request.**



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Conclusion

- **The data so far indicates that aircrews are not fully complying with the procedure.**
- **Oakland will work to raise pilots' awareness and compliance with the procedure.**
- **Oakland has included a friendly reminder in the Welcome Messages about notifying ATC about speed changes**
- **We hope to start to see a downward trend in the number of unannounced speed changes with the new reminder.**
- **If the numbers continue to show that aircrews are not complying, Oakland will work towards an automated solution for issuing pilot deviations and announce these efforts at the OWG in January of 2019.**



Discussion!!



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